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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,779	08/17/2001	Yasuhisa Nakajima	SONYJP 3.0-203	3668
530	7590	11/03/2004	EXAMINER	
LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK 600 SOUTH AVENUE WEST WESTFIELD, NJ 07090			VENT, JAMIE J	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/931,779	<b>Applicant(s)</b> NAKAJIMA, YASUHISA	
	<b>Examiner</b> Jamie Vent	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10 -20 are rejected under 35 U.S.C. 102(b) as being unpatentable by Tsukamoto et al (US 5,796,828).

**[claims 10 & 11]**

In regard to Claims 10 and 11, Tsukamoto et al discloses an information processing method and computer readable program for processing information, comprising:

- controlling the input of data to be multiplexed with content to be broadcast by digital broadcasting (Figure 1 access control 28a controls the information to be multiplexed to be broadcasted by the digital broadcasting as described in Column 5 Lines 14-39);
- generating control information associated with the deletion of said content if said content is received by a receiver and recorded to a storage-type recording medium (Figure 7a shows various situations in which the content is received and recorded onto the storage in which the signal is stored N-1 times S94 in which after it has been stored it is deleted from the storage medium); and
- inserting said control information into said data (Figure 7a S97 inserts the information onto the video signal).

**[claim 12]**

In regard to Claim 12, Tsukamoto et al discloses an information processing apparatus, comprising:

- a first acquiring unit operable to acquire a plurality of pieces of content broadcast by digital broadcasting (Figure 3 antenna 103 acquires a plurality of digital content broadcast);
- a first recording controller operable to control the recording of said plurality of pieces of content (Figure 3 shows the access control 28b which controls the recording of the content through the encipher 22);
- a second acquiring unit operable to acquire first control information associated with the deletion of content included in said plurality of pieces of content (Figure 3 modem 106 additionally acquires control information regarding the deletion of content as described in Column 6 Lines 9+ and further described in Column 9 Lines 1-9);
- a second recording controller operable to control the recording of said first control information (Figure 3 shows recording control directly from the access control to the recording and reproducing section which records the control information);
- a selector operable to select, on the basis of said first control information, said content to be deleted from among said plurality of pieces of content (Figure 3 the recording/reproducing section 23 acts as a selector of content to be deleted or recorded via the determination of various control information as seen in Figure 6); and
- a deletion controller operable to control the deletion of said content selected by said selector (Figure 7 shows the control of the data which is only stored N times as seen S71 which thereby deletes the data after the reproducing or viewing

times exceeds the set value. Therefore, the recording/reproducing apparatus acts as a deletion controller of the content due to information from the access control information indicating the certain date to erase as stated in Column 9 Lines 1-9).

**[claims 13, 16, & 17]**

In regard to Claims 13, 16, and 17, Tsukamoto et al discloses an information processing apparatus wherein said selector, if any of said plurality of pieces of content has been reproduced or copied to another recording medium, selects said content to be deleted from among said plurality of pieces of content (Figure 6 S71 shows various storage and viewer restrictions which thereby deletes the data once the set number of reproduction or copying to another medium exceeds the times permitted for the signal as further described in Column 7 Lines 20-37).

**[claims 14 & 15]**

In regard to Claims 14 and 15, Tsukamoto et al discloses an information processing apparatus wherein said selector selects, at a predetermined time interval, said content to be deleted from among said plurality of pieces of content (Figure 6 S68 to S70 to S73 which stores the content a number of days or hours before removing the content as further described in Column 7 Lines 38+).

**[claim 18]**

In regard to Claims 18 Tsukamoto et al discloses information processing apparatus and method further comprising:

- a third acquiring unit and controller operable to acquire second control information associated with the charging which is set on the basis of a number of times said content can be reproduced included in said content (Figure 1

broadcast station 101, broadcast center which receives information associated with charging and sends information to the broadcast unit 102 regarding which content is to be reproduced as described in Column 2 Lines 32-57); and

- a charging unit operable to charge, on the basis of said second control information, the reproduction of said content (Column 5 Lines 32-35 describes how the broadcast unit 101 is a charging unit which communicates to the second control information via the communication line to control the reproduction of content based on payment information).

**[claims 19 & 20]**

In regard to Claims 19 and 20, Tsukamoto et al discloses an information processing method and recording medium recorded with a computer readable program for processing information, comprising:

- acquiring a plurality of pieces of content broadcast by digital broadcasting (Column 2 Lines 57-61 describes the acquiring of the content broadcast into the receiving system 102 of Figure 1);
- controlling the recording of said plurality of pieces of content (Column 2 Lines 65-67 describes the access-control signals which control the recording and reproducing of the content);
- acquiring control information associated with the deletion of content included in said plurality of pieces of content (Column 9 Lines 1-9 states the control information which states the erasing of the content on a certain date); and
- controlling the recording of said control information; selecting, on the basis of said control information, said content to be deleted from among said plurality of pieces of content and controlling the deletion of the content selected in the

selecting step (Figure 7 shows the control of the data which is only stored N times as seen S71 which thereby deletes the data after the reproducing or viewing times exceeds the set value. Therefore, the recording/reproducing apparatus acts as a deletion controller of the content due to information from the access control information indicating the certain date to select and erase as stated in Column 9 Lines 1-9).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over unpatentable of Ohishi (US 6,487,720) in view of Tsukamoto et al (US 5,796,828).

#### **[claim 1]**

In regard to Claim 1, Ohishi discloses an information processing apparatus, comprising:

- a first input controller operable to control the input of first data to be multiplexed with content to be broadcast by digital broadcasting (Figure 1 shows a digital broadcast sending system wherein A/V data and control information is used to control the content of the broadcast of the signal by the control information KS which uses the scrambling unit to control content as described in Column 2 Lines 4-27);

- a first generating unit operable to generate first control information associated with the said content if said content is received by a receiver and recorded to a storage-type recording medium (Figure 1 shows a digital broadcast sending system for multiplexed data which has an enciphering unit 121 for generating a work key used to encipher attribute information of the television programs which is multiplexed is used as control information as described in Column 1 Lines 45-50); and
- an inserting unit operable to insert said first control information into said first data (Figure 1 shows an inserting unit through the TS packet unit 105 which inserts the ECM into the A/V signal); however, fails to disclose the content from the first generating unit is to be deleted.

Tsukamoto et al discloses a system wherein the access control information indicates when the video programming is to be erased and the date of the deletion (Column 9 Lines 1-8). By having access control information which details the deletion of content after certain days of viewing will discourage illegal copying of the content. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate an information processing apparatus with control information, as disclosed by Ohishi et al, and incorporate control information that would determine the exact time in which the content is to be erased from the recording medium to make sure the content was copy protected properly, as disclosed by Tsukamoto et al.

**[Claim 2]**

In regard to Claim 2, Ohishi discloses an information processing apparatus wherein said first control information includes broadcast information regarding the programs; however, fails to disclose if the program has been recorded and the storable period of time for storing said



content. Tsukamoto et al discloses a system which controls the recorded/reproduced content to be saved depending on number times viewed or the length of time it has been stored (Column 9 Lines 1-9). This option allows the content to be further protected since the storage is only permitted a certain amount of time based on payment from the user, which would discourage illegal use of the content and thereby protecting the copy protection of the content. Therefore, it would have been obvious to one of ordinary skilled in the art to combine the information processing apparatus of embedded content, as disclosed by Ohishi, and incorporate the element of allowing the content to be saved either a number of times or a number of days based on user payment of the content, as described by Tsukamoto et al, which allows for protection from illegally copying of the content.

**[claims 3 & 4]**

In regard to Claims 3 and 4, Ohishi discloses an information processing apparatus wherein said first control information includes a number of times said content could be reproduced and/or copied (Column 3 Lines 59+ discloses the entitlement management message (EMM) which enables the viewer to watch and reproduce the content a specific number of times).

**[claim 5]**

In regard to Claim 5, Ohishi discloses an information processing apparatus further comprising:

- a second generating unit operable to generate second control information associated with the charging for said content on the basis of a number of times said content can be reproduced if said content has been received by said receiver and recorded to said storage-type recording medium (Figure 1 contract information being sent into the enciphering unit 121 generates second control information regarding charging of content as described in Column 2 Lines 46-67); and

- wherein said inserting unit inserts said second control information into said first data (Figure 1 the second control information is inserted with the first data in the multiplexing unit 122).

**[claim 6]**

In regard to Claim 6, Ohishi discloses an information processing apparatus further comprising:

- a second input controller operable to control the input of video data and audio data to be multiplexed with said content to be broadcast by digital broadcasting (Figure 1 shows the input of work key Kw which gives contract information to the receiver regarding control of the audio and video data to be broadcasted); and
- a second generating unit operable to generate second data by multiplexing said first data inserted with said first control information with said video data and said audio data (Figure 1 enciphering unit 121 generates data to be additional multiplexed with the first data and inserted into the multiplexed digital broadcast signal).

Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over unpatentable of Ohishi (US 6,487,720) in view of Tsukamoto et al (US 5,796,828) in further view of Inoue (US 6,496,896).

**[claims 7, 8, & 9]**

In regard to Claim 7, 8, and 9, Ohishi discloses an information processing apparatus while Tsukamoto et al discloses an information processing apparatus with MPEG transport streams for display purposes; however, Ohishi in view of Tsukamoto fails to disclose the following:

- second data is an MPEG2 (Motion Picture Experts Group 2) transport stream and said first control information is inserted in an ECM (Entitlement Control Message) section of said MPEG2 transport stream.

- second data is transmitted in a carousel manner and said first control information is inserted in an adaptation header of a DII (Download Info Indication) packet.
- second data is transmitted in a carousel manner and said first control information is inserted in an expire descriptor of a DII packet.

Inoue discloses a transmission and recording apparatus which records content based on control signals embedded within the signal. Inoue discloses a second data to be MPEG2 transport stream as seen in Figure 6 in which the first control information is inserted in ECM section of the MPEG stream as seen in Figure 10d and described in Column 20 Lines 4-16. By providing the first control information into the ECM section of the MPEG2 transport stream allows for the decrypting encrypted information to be provided as well as information such as the following: work key, scramble keys, date and time information, and recording control information, which is provided throughout the system in order to access the reproducing of content. Inoue further discloses the transmission of data in the carousel manner which the first control information is inserted into adaptation header and expire descriptor of the DII packet as seen in Figure 8F and described in Column 19 Lines 20-45. The transmission of packets in the carousel manner allows for the selectively receiving of data and the placement of control information through the DII packet allows for an easier processing by the system. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a system for generating and controlling control information of embedded content, as disclosed by Ohishi in view of Tsukamoto et al, and incorporate a system which further emphasis the location of the control information in the transport stream, ECM section of the MPEG2 transport stream, and the way the information is transmitted through a carousel manner using information inserted into the DII packet of the transport stream, as disclosed by Inoue, which would allow for a more efficient transmitting means that allows greater control of the information.

**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

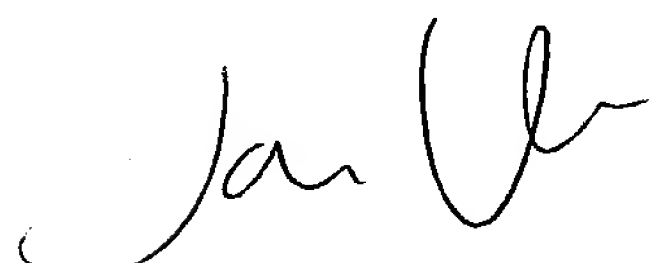
- Walker et al (US 5,054,064);
- Vogel (US 4,930,158);
- Harvey et al (US 4,704,725); and
- Fujiki (US 6,061,319).


**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamie Vent whose telephone number is 703-305-0378. The examiner can normally be reached on 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jamie Vent  
10/27/2004

  
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